



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,567	03/17/2006	Nestor Rodriguez-Amaya	R.306744	8024
2119	7590	09/02/2008	EXAMINER	
RONALD E. GREIGG			BASTIANELLI, JOHN	
GREIGG & GREIGG P.L.L.C.				
1423 POWHATAN STREET, UNIT ONE			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			3753	
			MAIL DATE	DELIVERY MODE
			09/02/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/572,567	RODRIGUEZ-AMAYA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	John Bastianelli	3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 17 March 2006.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 8-25 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 8-25 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 17 March 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>3/17/06, 11/14/07, 5/19/08</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

***Claim Objections***

1. Claim 8 is objected to because of the following informalities: In claim 8, line 1, the term "in particular" is indefinite. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ausman et al. US 6,364,282.

Ausman discloses a valve (Figs. 1-9) having a valve member that is guided so that it is able to slide in the direction of its longitudinal axis, protrudes into a valve pressure chamber in which high pressure prevails at least some of the time, and, in the valve pressure chamber, has a sealing surface at an end extending transversely in relation to its longitudinal axis, with which sealing surface the valve member cooperates with a valve seat extending transversely in relation to its longitudinal axis in order, at least to a large extent, to close an opening encompassed by the valve seat in relation to the valve pressure chamber, which opening is adjoined by a connection leading to a low-pressure region, characterized in that the valve member has a pin that protrudes into the connection and, when the sealing surface of the valve member is lifted away from the

valve seat, this pin conveys fluid flowing out of the valve pressure chamber in such a way that the outgoing fluid exerts at least approximately no resulting force or only a slight resulting force on the valve member in the direction of the longitudinal axis. The pin (83) initially deflects fluid flowing out of the valve pressure chamber in such a way that it flows along the valve member into the connection at least approximately in the direction of the longitudinal axis of the valve member and the pin then deflects the outgoing fluid so that it flows away from the longitudinal axis of the valve member at an angle  $y$  in relation to this longitudinal axis.

4. Claims 8-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Eblen US 4,653,455.

Eblen discloses a valve (Figs. 2-3) having a valve member that is guided so that it is able to slide in the direction of its longitudinal axis, protrudes into a valve pressure chamber in which high pressure prevails at least some of the time, and, in the valve pressure chamber, has a sealing surface at an end extending transversely in relation to its longitudinal axis, with which sealing surface the valve member cooperates with a valve seat extending transversely in relation to its longitudinal axis in order, at least to a large extent, to close an opening encompassed by the valve seat in relation to the valve pressure chamber, which opening is adjoined by a connection leading to a low-pressure region, characterized in that the valve member has a pin that protrudes into the connection and, when the sealing surface of the valve member is lifted away from the valve seat, this pin conveys fluid flowing out of the valve pressure chamber in such a way that the outgoing fluid exerts at least approximately no resulting force or only a

slight resulting force on the valve member in the direction of the longitudinal axis. The pin (83) initially deflects fluid flowing out of the valve pressure chamber in such a way that it flows along the valve member into the connection at least approximately in the direction of the longitudinal axis of the valve member and the pin then deflects the outgoing fluid so that it flows away from the longitudinal axis of the valve member at an angle  $\gamma$  in relation to this longitudinal axis. The pin has a circumferential annular groove for flow deflection, which extends in the direction of the longitudinal axis of the valve member, at least approximately to the level of the sealing surface of the valve member. The valve seat and/or the sealing surface on the valve member is embodied so that the distance between the sealing surface and the valve seat, starting from the outer edge of the valve member, first decreases as it extends radially inward toward the longitudinal axis of the valve member and then increases again as it continues to extend radially inward. The sealing surface of the valve member and the valve seat are approximately planar.

5. Claims 8-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Boecking US 2003/0057298.

Boecking discloses a valve (Figs. 2-3) having a valve member that is guided so that it is able to slide in the direction of its longitudinal axis, protrudes into a valve pressure chamber in which high pressure prevails at least some of the time, and, in the valve pressure chamber, has a sealing surface at an end extending transversely in relation to its longitudinal axis, with which sealing surface the valve member cooperates with a valve seat extending transversely in relation to its longitudinal axis in order, at least to a

large extent, to close an opening encompassed by the valve seat in relation to the valve pressure chamber, which opening is adjoined by a connection leading to a low-pressure region, characterized in that the valve member has a pin that protrudes into the connection and, when the sealing surface of the valve member is lifted away from the valve seat, this pin conveys fluid flowing out of the valve pressure chamber in such a way that the outgoing fluid exerts at least approximately no resulting force or only a slight resulting force on the valve member in the direction of the longitudinal axis. The pin (83) initially deflects fluid flowing out of the valve pressure chamber in such a way that it flows along the valve member into the connection at least approximately in the direction of the longitudinal axis of the valve member and the pin then deflects the outgoing fluid so that it flows away from the longitudinal axis of the valve member at an angle  $y$  in relation to this longitudinal axis. The pin has a circumferential annular groove for flow deflection, which extends in the direction of the longitudinal axis of the valve member, at least approximately to the level of the sealing surface of the valve member. The valve seat and/or the sealing surface on the valve member is embodied so that the distance between the sealing surface and the valve seat, starting from the outer edge of the valve member, first decreases as it extends radially inward toward the longitudinal axis of the valve member and then increases again as it continues to extend radially inward.

6. Claims 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Taue US 5,127,583.

Taue discloses a valve having a valve member (Fig. 8) that is guided so that it is able to slide in the direction of its longitudinal axis, protrudes into a valve pressure chamber in which high pressure prevails at least some of the time, and, in the valve pressure chamber, has a sealing surface at an end extending transversely in relation to its longitudinal axis, with which sealing surface the valve member cooperates with a valve seat extending transversely in relation to its longitudinal axis in order, at least to a large extent, to close an opening encompassed by the valve seat in relation to the valve pressure chamber, which opening is adjoined by a connection leading to a low-pressure region, characterized in that the valve member has a pin that protrudes into the connection and, when the sealing surface of the valve member is lifted away from the valve seat, this pin conveys fluid flowing out of the valve pressure chamber in such a way that the outgoing fluid exerts at least approximately no resulting force or only a slight resulting force on the valve member in the direction of the longitudinal axis. The pin (83) initially deflects fluid flowing out of the valve pressure chamber in such a way that it flows along the valve member into the connection at least approximately in the direction of the longitudinal axis of the valve member and the pin then deflects the outgoing fluid so that it flows away from the longitudinal axis of the valve member at an angle  $\gamma$  in relation to this longitudinal axis. The pin has a circumferential annular groove for flow deflection, which extends in the direction of the longitudinal axis of the valve member, at least approximately to the level of the sealing surface of the valve member.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshida discloses a valve with a valve member having a pin.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-Th (8-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Bastianelli  
Primary Examiner  
Art Unit 3753

/John Bastianelli/  
Primary Examiner, Art Unit 3753